

REMARKS

Applicants are amending claims 1-6, 8, 13, 17, 18, 36-48, 62, 67-71, 75, and 76, are canceling claim 7, and are adding new claims 79-90. Applicants respectfully submit that no new matter is being added by these amendments.

INTERVIEW SUMMARY

A final Office Action was mailed on February 20, 2004. On March 1, 2004, Applicants' representative Wendi Schepler held a telephone interview with Examiner Nguyen regarding the finality of the Office Action. The parties discussed the rejection of previously-allowable claim 62 in view of the newly-cited reference to Ebata et al. (U.S. Patent No. 6,513,061). Applicants explained that since this was a new ground of rejection not necessitated by Applicants' amendment, the finality of the Office Action was not proper. Applicants thank the Examiner for withdrawing the finality of the Office Action. The Examiner mailed a new non-final Office Action on March 25, 2004.

On May 6, 2004, an in-person interview was held between Examiner Nguyen, Primary Examiner Le Luu, Applicant Adam Grove, and Applicants' representatives Wendi Schepler and Steve Hemminger. Mr. Grove described his invention and a currently implemented embodiment of his invention. The parties discussed differences between Applicants' invention and the teachings of Gelman, including the lack of motivation to combine the teachings of Gelman and Gerstel. The parties also discussed potential amendments to the claims. No agreement was reached regarding any of the claims. Applicants thank the Examiners for their time and their careful consideration of Applicants' arguments.

SUMMARY OF PROSECUTION HISTORY

First Non-Final Office Action and Amendment A

On May 16, 2003, the Examiner mailed a first non-final Office Action, rejecting all the pending claims. The Examiner rejected claims 1-2, 9, 13-33, 36-37, 42, and 47-63 under 35 U.S.C. § 102(e) as being unpatentable over Gelman et al. (U.S. Patent No. 6,415,329) (“Gelman”).

Applicants traversed this rejection in Amendment A (dated September 10, 2003), arguing that while Gelman depicts a source gateway 12 in Fig. 1 and a destination gateway 16 in Fig. 1, Gelman does not disclose or teach “selecting a node of first type” or “selecting a node of a second type” as recited in claim 1. Even if one were to assume that the source gateway and the destination gateway in Fig. 1 satisfied the limitations of “a node of a first type” and “a node of a second type” there is no disclosure in Gelman of any methodology of “selecting” either of these nodes. Instead Gelman describes a way of transmitting packets over an existing satellite link when those packets happen to be routed to the satellite source gateway without any suggestion that there is a choice in the satellite destination gateway once the packet is routed to the satellite source gateway. (Gelman col. 2:41, 2:46-57). Gelman simply does not disclose or teach, as Claim 1 requires “selecting a node,” either of a first type or a second type. Applicants applied similar arguments to the rejections of claims 2, 9, 13-33, 36-37, 42, and 47-63.

In the first non-final Office Action, the Examiner rejected claims 3-8, 10-12, 34-35, 38-41, 43-46, and 64-65 under 35 U.S.C. § 103 as being unpatentable over Gelman in view of Rochberger et al. (U.S. Pat. No. 6,483,808) (“Rochberger”). In Amendment A, Applicants traversed the rejection, explaining that neither Gelman nor Rochberger teach or disclose

“selecting a node of the first type from among the plurality of candidate nodes of the first type to optimize the measure of communications performance” required by claim 3,
“selecting a node of a second type from among the plurality of candidate nodes of the second type to optimize the measure of communications performance” required by claim 5;
“selecting a node of a second type from among the plurality of candidate nodes of the second type to optimize the measure of communications performance” required by claim 6;
“selecting a node of a first type so as to optimize a measure of communications performance for at least a sub-link in a link from the source to the destination via the node of the first type and the node of the second type” and/or “selecting a node of a second type so as to optimize a measure of communications performance for at least a sub-link in a link from the source to the destination via the node of the first type and the node of the second type” required by claim 7; or “selecting a node of the first type from among the plurality of candidate nodes of the first type to optimize the first measure of communications performance” and/or “selecting a node of a second type from among the plurality of candidate nodes of the second type to optimize a combination of the second and third measures of communications performance” required by claim 8.

Instead, Applicants’ explained, Gelman describes a way of transmitting packets over an existing satellite link when those packets happen to be routed to the satellite source gateway without any suggestion that there is or should be a choice in the satellite destination gateway once the packet is routed to the satellite source gateway. Gelman does not teach or disclose, as recited by claims 3, 5, and 8, “selecting a node of the first type,” or “selecting a node of the second type.” The Applicants applied similar arguments to the rejection of claims 10-12, 34-35, 38-41, 43-46, and 64-65.

Second Non-Final Office Action and Amendment B

In a second non-final Office Action mailed November 7, 2003, the Examiner acknowledged that Gelman did not disclose or suggest “selecting” nodes of any type and withdrew the rejections based on Gelman as the primary reference. The Examiner introduced a new reference, and rejected claims 1-19 and 36-49 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,141,325 to Gerstel et al. (“Gerstel”). Applicants traversed the rejection in Amendment B (dated February 2, 2004), explaining that the pending claims address improving the performance of Internet communication, while Gerstel discloses a technique for achieving network topology updates in networks containing sub-networks that have different operating protocols.

Gerstel discloses sub-networks that are not compatible because of their topology, for example token ring networks and wide area networks, or because of their operating systems. (Gerstel, col. 1, lines 19-23; col. 3, lines 5-29). In Gerstel’s, each node in a network comprises a plurality of agents, written in migrating executable code (e.g., Java), which represent every other sub-network or domain in the network. (Gerstel, col. 3, lines 31-34). An originating node can calculate a path through the network locally, simply by querying its agents representing the sub-networks. (Gerstel, col. 3, lines 40-42). Gerstel discloses an example network 204 having sub-networks A, B, C, and D, which all require different operating protocols and have different topologies (e.g., B is a ring network and D is a WAN). (Gerstel, col. 4, lines 47-54).

Gerstel “involves shipment of agent code across the network.” (Gerstel, col. 8, line 37). This agent code is written in migrating executable code like Java so that nodes in the different subnets (which have different kinds of hardware) can install and use the agent code. (Gerstel, col. 3, lines 5-29). Gerstel merely discloses that the agent code is sent over the

network (col. 8, lines 36-48), but does not teach or disclose how the “shipment of agent code” is accomplished. Gerstel does not discuss or concern itself with communication protocols, the subject of the current invention.

The sub-networks of Gerstel require different *operating* protocols and have different *topologies* (e.g., token ring, WAN). (Gerstel, col. 4, lines 47-54). Gerstel does not teach or disclose different *communication* protocols for communicating Internet messages. Gerstel does not teach or disclose “communicating the Internet message from the source to the node of the first type using a first communication protocol” as recited in claim 1. Similarly, Gerstel does not disclose “communicating the Internet message from the node of the first type to the node of the second type using a second communication protocol” as recited in claim 1. Applicants applied similar arguments to the rejections of pending claims 2-8, 13, 17, 18, and 36-48.

In the second non-final Office Action, the Examiner rejected claims 20-33, 50-61, and 63 under 35 U.S.C. § 103(a) as being unpatentable over Gerstel in view of Gelman.. In Amendment B, Applicants traversed the rejection, explaining that Gerstel and Gelman do not disclose all of the limitations of the claims that claims 20-33, 50-61, and 63 are dependent on. Further, the protocol disclosed by Gelman for the satellite link is a Wireless Link Protocol (WLP), which is a standard protocol that is based on the physical characteristics of the satellite path (a high delay bandwidth path). (Gelman, col. 7, lines 41-43). The satellite path is a *high delay* path, and such a path does not teach or suggest a high performance communication protocol.

Applicants further explained that there is no suggestion or motivation to combine the Gerstel and Gelman references, and the combined references would not teach or disclose all of the limitations of claims 20-33, 50-61, and 63. Gerstel discloses sending topology updates

between sub-networks having different topologies, and does not disclose communicating Internet messages using communication protocols. Gelman discloses using TCP/IP, and using WLP over a satellite link. Gelman is silent regarding differing topologies of sub-networks and topology updates, and does not disclose operating protocols or sub-networks having different operating protocols. Thus, one of ordinary skill in the art would not be motivated to combine Gelman with Gerstel.

THE PENDING OFFICE ACTION

In the non-final Office Action mailed March 25, 2004, the Examiner withdrew the rejection under 35 U.S.C. § 102(e) in view of Gerstel, and rejected claims 1-8, 13, 17, 18, 20, 21, 23, 27, 28, 30, 36-48, 50-59, 69, and 75-78 under 35 U.S.C. § 103(a) as being unpatentable over Gerstel in view of Gelman, and rejected claims 62, 67, 68, and 70-74 under 35 U.S.C. § 103(a) as being unpatentable over Gerstel and Gelman in view of U.S. Patent No. 6,513,061 to Ebata et al. ("Ebata"). Applicants respectfully traverse.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Gerstel in view of Gelman

In section 3 of the Office Action, the Examiner rejected claims 1-8, 13, 17, 18, 20, 21, 23, 27, 28, 30, 36-48, 50-59, 69, and 75-78 under 35 U.S.C. § 103(a) as being unpatentable over Gerstel in view of Gelman.

Regarding claim 1, the Examiner stated that Gerstel discloses selecting a node of a first type, selecting a node of a second type, communicating an Internet message from the source to the node of a first type, communicating the Internet message from the node of a first type to the node of a second type, and communicating the Internet message from the node of

a second type to the destination. The Examiner acknowledged that Gerstel does not explicitly teach a first, second, or third communication protocol. As explained below Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type.

Gerstel teaches that a node wishing to send data over a network “can calculate a path through the network locally, simply by querying its agents representing the sub-networks.” (Gerstel, col. 3, lines 36-42). These agents are resident in nodes in the network and are written in a migrating executable code (e.g., Java) that can be understood by the sub-networks having different topologies and operating protocols. (Gerstel, col. 3, lines 5-10). These sub-networks are not the claimed nodes of a first type or the claimed nodes of second type. While the subnetworks described in Gerstel may have different operating protocols, there is no discussion at all about the nodes being able to handle more than one communication protocol. Indeed, the Examiner has acknowledged that Gerstel does not teach communicating an Internet message using a first, second, and third communication protocols. Since Gerstel does not mention communication protocols, Gerstel cannot disclose or teach selecting nodes capable of receiving Internet messages using one protocol and sending Internet messages using a different protocol. It is understood that all of the nodes in Gerstel use the same communication protocol. Quite simply, Gerstel is concerned with providing topology updates to agents at a node, and determining a path through the network populated with nodes that all use the same communication protocol by querying the agents at a single node, not with communicating an Internet message or with selecting nodes that have the capability to handle two communication protocols. Gerstel is silent regarding communication protocols. To the extent that the Examiner maintains this argument, it is requested that the Examiner point out where in the reference Gerstel talks about different communication protocols. Since Gerstel does not teach selecting nodes of the first or second type as claimed,

the combination of Gelman and Gerstel, even if proper would not result in the claimed invention.

Gelman on the other hand is concerned with ways to handle the problems associated with the transfer of Internet messages when they happen to be routed to a high delay bandwidth satellite link. It does not discuss or address methods for selecting nodes capable of receiving an Internet message in one protocol and sending messages in another protocol to increase the performance of the end-to-end transfer of an Internet message. As previously explained it discloses a system that includes a source node that communicates with a satellite source gateway, a satellite destination gateway that communicates with a destination node, and a fixed satellite link between the satellite source gateway and the satellite destination gateway. (Gelman, FIG. 1, col. 7, lines 12-23). The satellite nodes of Gelman are not nodes that are specifically selected and Gelman does not discuss any criteria that could be or should be used in selecting these nodes. Gelman merely describes a way of transmitting packets over an existing satellite link when those packets happen to be routed to the satellite source gateway without any suggestion that there is a choice in the satellite source gateway or the destination source gateway. (Gelman col. 2, line 41, col. 2, lines 46). Instead the problem addressed by Gelman is the poor performance of TCP/IP over the high-delay bandwidth satellite link. Gelman teaches that instead of using TCP/IP over the satellite link a Wireless Link Protocol should be used over the satellite link to bring the performance of communicating over the satellite link up to the performance of TCP/IP over terrestrial links.

That Gelman does not disclose the selection of the claimed node of a first type is evident from its description of the four disclosed embodiments of the system. Gelman discloses four embodiments of his system. In two embodiments, the non-generic non-transparent (NGNT) and the generic non-transparent (GNT), modifications to the end users

(client and server) are required to ensure that all TCP packets are sent to the appropriate gateway. (Gelman, col. 14, line 61 – col. 15, line 3). In other words, there is no selection of the node of a first type and since the satellite source gateway only communicates with one satellite destination gateway, there is no selection of a node of a second type. In the other two preferred embodiments of Gelman's system, the generic transparent (GT) and non-generic transparent (NGT), all TCP packets leaving a particular subnet must pass through a particular gateway. (Gelman, col. 15, lines 14-26). In fact, Gelman teaches that “[t]opologically, the only way for the client 220 to communicate with the server 226 is through the client and server gateways 222 and 224 respectively. These gateways 222, 224 are oriented in a manner such that *each client can only access one gateway*.” (Gelman, col. 16, lines 12-16) (emphasis added). Thus, Gelman teaches that the source can communicate with one and only one satellite source gateway. There is no teaching or suggestion in Gelman that selection of a satellite source gateway is desired or even possible for a given source node. Since Gelman teaches that the messages should be directed to a specific satellite gateway, even if Gerstel did teach selecting nodes of a first type, one skilled in the art would not be motivated to combine the two since Gelman teaches away from selection if the satellite link is used.

On page 5 of the current Office Action, the Examiner stated that it would have been obvious to one having ordinary skill in the art to combine the teachings of Gerstel and Gelman “because it would allow the system to improve/optimize the performance of the TCP/IP protocol suite while transmitting packets (i.e., Internet messages) over different environments/subnets using protocols conversion/translation, which were conventionally employed in the art.” Applicants respectfully submit that this statement does not point to a specific teaching in either of the references that would motivate one skilled in the art to

combine the references or that the combination of the two would result in an improved or optimized system. Applicants respectfully request that if the Examiner maintains that there is a teaching in the references that would motivate their combination that he provide the citation by column and line number to where he believes such a teaching is found in the references.

Attached to this paper as Exhibit A is the Declaration of Thomas Lyon, who is skilled in the art of computer networks. Mr. Lyon has studied both the Gerstel and Gelman references, and as indicated in his declaration he can find no motivation to combine the teachings of the references. Lyon Decl., ¶ 6. Regarding the Gelman reference, Mr. Lyon states: “The Gelman approach implicitly relies on the normal IP network layer routing functions to steer traffic to the link and gateways in question – there is no motivation to seek a separate gateway selection mechanism.” *Id.* This confirms Applicants’ position that one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel.

Attached to this paper as Exhibit B is the Declaration of Adam Grove, the first-named inventor of the present application. Mr. Grove is the co-founder and CTO of Netli, Inc. the assignee of the present application. Netli is a company created to implement the claimed methods and systems, and has attracted investment of over \$20 Million from five well-known professional venture-capital investment firms in Silicon Valley. Grove Decl., ¶ 3(i). Netli has sold its services to over a dozen well-known companies, including Boeing, Hewlett Packard, and Motorola, and has over \$1 Million of booked revenue. Grove Decl., ¶ 3(iii). These facts show the need for and the commercial success of a presently-implemented embodiment of the claimed invention. An independent market research report states that the “Netli solution show a lot of promise and the company is a good candidate for longer-term success in the market.” Grove Decl., ¶ 3(ii). The recognition by the industry that Netli’s

implementation of the invention is novel also supports Applicants' explanation that it is not obvious in view of the cited references.

Applicants respectfully submit that none of the references, either alone or in combination, disclose all of the limitations of claim 1, and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Thus, claim 1 is non-obvious in view of the cited references and is in condition for allowance. Claims 3, 5-8, 13, 17, 20, 23, 27, 30 and 81-84 depend, directly or indirectly, from claim 1 and are therefore allowable for at least the same reasons. If all of the elements of claim 1 are not found in the combination of Gelman and Gerstel, all of the elements of any dependent claim cannot be found in the references.

Regarding claim 2, the Examiner stated that Gerstel teaches selecting a node of a first type, communicating an Internet message from the source to the node of a first type, communicating the Internet message from the node of a first type to the node of a second type, and communicating the Internet message from the node of a second type to the destination. The Examiner also stated that Gelman teaches a method for communicating an Internet message between a source and a destination over the Internet using different protocols.

As set forth above, Gerstel teaches providing topology updates to agents at a node, and selecting a path through the network by querying the agents at a single node, and does not teach communicating an Internet message. As set forth above, Gelman teaches a way of transmitting packets over an existing satellite link when those packets happen to be routed to

the satellite source gateway without any suggestion that there is a choice in the satellite source gateway or the satellite destination gateway. In fact, Gelman teaches that the source can communicate with one and only one satellite source gateway. Thus, one of ordinary skill in the art would not be motivated to combine Gelman with Gerstel, even if Gerstel did disclose the selection of a claimed node of a first type, which it does not. As explained Gerstel teaches selecting a route through a network having sub-networks with different topologies and different operating protocols.

Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 2 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. Thus, claim 2 is non-obvious in view of the cited references, and is in condition for allowance. Claims 4, 18, 21, 28, and 85-89 depend, directly or indirectly, from claim 2, and are therefore allowable for at least the same reasons.

Regarding claims 36-48, the Examiner stated that they are system claims that correspond to the method claims 1-8, 13, 17, and 18, and are rejected under the same rationale. However, each of claims 36, 37, 42, 47, and 48 is an independent system claim and must be analyzed independently.

Claim 36 recites “a plurality of nodes including one or more nodes of a first type and one or more nodes of a second type; [and] a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” The Examiner has not pointed to any structure in Gerstel or Gelman that discloses “a first selector” as recited in claim 36. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however,

Gerstel does not teach or disclose “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” There is no teaching or suggestion in either Gerstel or Gelman to add such a “first selector” to the system of Gelman. As set forth above, Gerstel does not teach or disclose selecting the claimed nodes of a first and second type that are able to communicate using different communication protocols. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

As set forth above, Mr. Lyon states in his Declaration that “[T]he Gelman approach implicitly relies on the normal IP network layer routing functions to steer traffic to the link and gateways in question – there is no motivation to seek a separate gateway selection mechanism.” Lyon Decl., ¶ 6. Thus one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel even if Gerstel taught the claimed selector, which it does not.

Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 36 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 36 is non-obvious in view of the cited references and is in condition for allowance. Claims 38, 40, 41, 45, 50, 53, 55, and 57 depend, directly or indirectly, from claim 36 and are therefore allowable for at least the same reasons.

Claim 37 recites “a selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” The Examiner has not pointed to any structure in Gerstel or Gelman that discloses “a selector” as recited by claim

37. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to add “a selector” as recited by claim 37 to the system of Gelman. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 37 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 37 is non-obvious in view of the cited references and is in condition for allowance. Claims 39, 51, and 58 depend, directly or indirectly, from claim 37 and are therefore allowable for at least the same reasons.

Claim 42 recites “a selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source, and to identify a node of a second type from the one or more nodes of a second type and provide the selection to a selected node of a first type.” The Examiner has pointed to no structure in Gerstel or Gelman that discloses “a selector” as recited in claim 42. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to add a selector as recited in claim 42 to the system of Gelman. As set forth above, Gerstel does not

teach selecting the claimed nodes of a first type or the claimed nodes of a second type.

Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 42 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 42 is non-obvious in view of the cited references and is in condition for allowance. Claims 43, 44, 46, 52, 54, 56, and 59 depend, directly or indirectly, from claim 42 and are therefore allowable for at least the same reasons.

Claim 47 recites “a selector to identify a node of a second type from the one or more nodes of a second type and provide the selection to a node of the first type.” The Examiner has not pointed to any structure in Gerstel or Gelman that discloses “a selector” as recited in claim 47. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to add a selector as recited in claim 47 to the system of Gelman. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 47 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and

Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 47 is non-obvious in view of the cited references and is in condition for allowance.

Claim 48 recites “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to a redirector; [and] a second selector to identify a node of a second type from the one or more nodes of a second type and provide the selection to a selected node of a first type.” The Examiner has pointed to no structure in Gerstel or Gelman that discloses “a first selector” as recited in claim 48, no structure in Gerstel or Gelman that discloses “a second selector,” and no structure in Gerstel or Gelman that discloses “a redirector.” Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to add a first or second selector as recited in claim 48 to the system of Gelman. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Neither of the cited references discloses “a redirector” as recited in claim 48. Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 48 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has

achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 48 is non-obvious in view of the cited references and is in condition for allowance.

Regarding claim 69, the Examiner stated that it is a combination of claims 37, 45, 51, and 52 and is rejected under the same rationale. Claim 69 recites “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” The Examiner has pointed to no structure in Gerstel or Gelman that discloses “a first selector” as recited in claim 69. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to add a first selector to identify a node of a first type and communicate the selection to the source to the system of Gelman. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 69 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 69 is non-obvious in view of the cited references and is in condition for allowance.

Regarding claim 75, the Examiner stated that it is a corresponding method claim of claims 1, 20, and 27, and is rejected under the same rationale. Claim 75 recites “deploying a

plurality of first specialized nodes . . . ; [and] deploying a plurality of second specialized nodes.” The Examiner has pointed to no disclosure in either Gerstel or Gelman that teaches deploying a plurality of first specialized nodes and a plurality of second specialized nodes. Gerstel does not disclose any node that could be considered a first or second specialized node, as each node in Gerstel receives the topology updates. As set forth above, Gerstel does not teach any nodes in the network that are able to receive an Internet message using one communication protocol and to send an Internet message using another communication protocol. Even if the source gateway or destination gateway of Gelman is considered to be a specialized node, Gelman does not teach or disclose deploying a plurality of first or second specialized nodes. In fact, Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 75 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 75 is non-obvious in view of the cited references and is in condition for allowance.

Regarding claims 76-78, the Examiner stated that they are corresponding method claims of claims 1, 3, 5, 20, and 27 and are rejected under the same rationale. Claim 76 is an independent method and system claim, and should be analyzed independently.

Claim 76 recites “selecting one of the plurality of first specialized nodes; [and] selecting one of the plurality of second specialized nodes.” Gerstel does disclose a node that

selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in either Gerstel or Gelman to “select” a source gateway or destination gateway of Gelman. Gerstel does not teach selecting one a plurality of the claimed first or second specialized nodes. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16). Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of claim 76 and that there is no teaching or suggestion in either of the references that would motivate one of ordinary skill in the art to combine Gerstel and Gelman. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel. Lyon Decl., ¶ 6. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 76 is non-obvious in view of the cited references and is in condition for allowance. Claims 77 and 78 depend, directly or indirectly, from claim 76 and are therefore allowable for at least the same reasons.

Gerstel-Gelman in view of Ebata

In section 18 of the Office Action, the Examiner rejected claims 62, 67, 68, and 70-74 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gerstel and Gelman in view of Ebata. Applicants respectfully traverse.

Regarding claim 62, the Examiner stated that Gerstel and Gelman teach the system of claim 1 and 13 with the addition of a persistent transport connection and other limitations. Claim 62 is a system claim that is independent of the methods of claims 1 and 13, and should be analyzed independently.

Claim 62 recites “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source; [and] a second selector to identify a node of a second type from the one or more nodes of a second type and communicate the selection to a selected node of the first type.” The Examiner has pointed to no structure in Gerstel or Gelman that discloses “a first selector” or “a second selector” as recited in claim 62. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or disclosure in either Gerstel or Gelman of a first selector to identify a node of a first type or a second selector to identify a node of a second type as recited in claim 62. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

Claim 62 further recites that “the second and fifth communication protocols each make use of a persistent transport connection between a node of the first type and a node of the second type.” The Examiner stated that a persistent connection is included in HTTP. However, the Examiner has also stated that Gelman teaches a second communication protocol, which is WLP. Stating that a persistent connection is included in HTTP to show a persistent transport connection used by the second and fifth communication protocols while at the same time maintaining that WLP corresponds to the claimed second and fifth communication protocol is inconsistent. The Examiner has not shown that there is a disclosure in either Gerstel or Gelman that teaches second and fifth communication protocols that each make use of a persistent transport connection between a node of a first type and a node of a second type.

The Examiner also stated that neither Gerstel nor Gelman explicitly teaches that the first selector includes software to select a node of the first type based at least in part on an estimate of network distance between the source and the selected node of the first type and communicates the selection to the source using a DNS protocol. The Examiner stated that Ebata teaches a proxy server selecting unit (the disclosed dynamic DNS server) that selects a most approximate proxy server to a client based on the location information of the client and the managed content, and notifies the client of the address of the selected proxy server.

Ebata does not teach or disclose using different communication protocols between a source and a node of a first type, between a node of a first type and a node of a second type, and between a node of a second type and a destination. Ebata does not teach or disclose a first selector to identify a claimed node of a first type that is capable of communicating using two different communication protocols. Thus, there is no teaching or suggestion in Ebata that would motivate one of ordinary skill in the art to combine Ebata with Gelman. Further, since Gelman discloses that a source can communicate with one and only one source gateway, there is no teaching or suggestion in Gelman to combine the system of Gelman with the proxy server selecting unit of Ebata. Also, Ebata does not teach or disclose networks having sub-networks with different topologies and Gerstel does not disclose proxy servers or DNS servers. Thus, one of ordinary skill in the art would not be motivated to combine the Gerstel and Ebata references.

Applicants respectfully submit that none of the cited references, either alone or in combination, teach all of the limitations of claim 62 and that there is no teaching or suggestion in any of the cited references that would motivate one of ordinary skill in the art to combine the teachings of the Gerstel, Gelman, and Ebata references. One of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the

teachings of Gerstel and the teachings of Ebata. Lyon Decl., ¶ 7. As set forth above, a presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3.

Thus, claim 62 is non-obvious over the cited references and is in condition for allowance.

The Examiner stated that claims 67, 68, and 70 are corresponding claims of claim 62 and are rejected under the same rationale. However, each of claims 67, 68, and 70 is an independent claim that must be analyzed independently.

Claim 67 recites “a second selector to identify a node of a second type from the one or more nodes of a second type and communicate the selection to a selected node of a first type.” The Examiner has pointed to no structure in any of the Gerstel, Gelman, or Ebata references that teaches or discloses “a second selector” as recited in claim 67. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in Gerstel, Gelman, or Ebata of “a second selector to identify a node of a second type” as recited in claim 67. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

Ebata teaches a proxy server selecting unit that selects a proxy server for a client; however, Ebata does not teach or suggest “a second selector to identify a node of a second type and communicate the selection to a selected node of a first type.” Ebata does not disclose or suggest the claimed nodes of a first type and a second type that are capable of communicating using two different communication protocols. Applicants respectfully submit that none of the cited references, either alone or in combination, teach or suggest all of the limitations of claim 67 and that there is no teaching or suggestion in the cited references that

would motivate one of ordinary skill in the art to combine the Gerstel, Gelman, and Ebata references. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel and the teachings of Ebata. Lyon Decl., ¶ 7. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 67 is non-obvious over the cited references and is in condition for allowance.

Claim 68 recites “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” The Examiner has not pointed to any structure in any of the Gerstel, Gelman, or Ebata references that discloses “a first selector” as recited in claim 68. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in Gerstel, Gelman, or Ebata of “a first selector” as recited in claim 68. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

Ebata teaches a proxy server selecting unit that selects a proxy server for a client; however, Ebata does not teach or disclose any communication protocols and does not teach selecting the claimed nodes of a first type that are able to communicate using two different communication protocols. There is no teaching or suggestion in Ebata that would motivate one of ordinary skill in the art to combine the Ebata and Gelman references. Applicants respectfully submit that none of the cited references, either alone or in combination, teach or suggest all of the limitations of claim 68 and that there is no teaching or suggestion in the cited references that would motivate one of ordinary skill in the art to combine the Gerstel,

Gelman, and Ebata references. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel and the teachings of Ebata. Lyon Decl., ¶ 7. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 68 is non-obvious over the cited references and is in condition for allowance.

Claim 70 recites “a first selector to identify a node of a first type from the one or more nodes of a first type and communicate the selection to the source.” The Examiner has not pointed to any structure in any of the Gerstel, Gelman, or Ebata references that discloses “a first selector” as recited in claim 70. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in Gerstel, Gelman, or Ebata of “a first selector” as recited in claim 70. As set forth above, Gerstel does not teach selecting the claimed nodes of a first type or the claimed nodes of a second type. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

Ebata teaches a proxy server selecting unit that selects a proxy server for a client; however, Ebata does not teach or disclose any communication protocols and does not teach or disclose selecting the claimed nodes of a first type that are able to communicate using two different communication protocols. There is no teaching or suggestion in Ebata that would motivate one of ordinary skill in the art to combine the Ebata and Gelman references.

Applicants respectfully submit that none of the cited references, either alone or in combination, teach or suggest all of the limitations of claim 70 and that there is no teaching or suggestion in the cited references that would motivate one of ordinary skill in the art to combine the Gerstel, Gelman, and Ebata references. As set forth above, one of skill in the art

of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel with the teachings of Ebata. Lyon Decl., ¶ 7. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 70 is non-obvious over the cited references and is in condition for allowance.

Regarding claims 71-74, the Examiner stated that they are corresponding claims of claim 62 and are rejected under the same rationale. Claim 71 is an independent claim and should be analyzed independently.

Claim 71 recites “selecting a first specialized node using the selector.” The Examiner has not pointed to any structure in any of the Gerstel, Gelman, or Ebata references that discloses “a first specialized node,” or “a selector” as recited in claim 71. Gerstel does disclose a node that selects a route through a network having sub-networks with different topologies and operating protocols; however, there is no teaching or suggestion in Gerstel, Gelman, or Ebata of “a selector” as recited in claim 71. Gerstel does not teach selecting the claimed at least one first specialized node or the claimed at least one second specialized node. Gelman teaches that a source can communicate with one and only one source gateway. (Gelman, col. 16, lines 12-16).

Ebata teaches a proxy server selecting unit that selects a proxy server for a client; however, Ebata does not teach or disclose any communication protocols and does not teach selecting a claimed first specialized node that is able to communicate using two different communication protocols. There is no teaching or suggestion in Ebata that would motivate one of ordinary skill in the art to combine the Ebata and Gelman references. Applicants respectfully submit that none of the cited references, either alone or in combination, teach or suggest all of the limitations of claim 71 and that there is no teaching or suggestion in the

cited references that would motivate one of ordinary skill in the art to combine the Gerstel, Gelman, and Ebata references. As set forth above, one of skill in the art of computer networks would not be motivated to combine the teachings of Gelman with the teachings of Gerstel and the teachings of Ebata. Lyon Decl., ¶ 7. A presently-implemented embodiment of the claimed invention has achieved commercial success in the market and satisfies a previously unmet need. Grove Decl., ¶ 3. Thus, claim 71 is non-obvious over the cited references and is in condition for allowance. Claims 72-74 depend on claim 71 and are therefore allowable for at least the same reasons.

NEW CLAIMS

Applicants have added new independent claims 79-81. Applicants respectfully submit that none of Gerstel, Gelman, or Ebata, alone or in combination, teach or disclose all of the limitations of claims 79-81. As set forth above, there is no suggestion or motivation to combine the cited references. Thus, claims 79-81 are in condition for allowance.

Applicants have added new dependent claims 82-90. Claims 82-85 depend directly from claim 1, and thus are allowable for at least the same reasons. Claims 86-90 depend directly from claim 2, and thus are allowable for at least the same reasons.

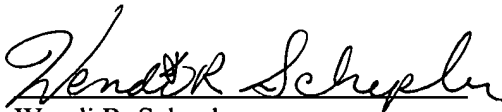
CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully submit that all pending claims in the present application are in condition for allowance and respectfully request the issuance of a Notice of Allowance. If a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Applicants' attorney at the number listed below.

Respectfully submitted,

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